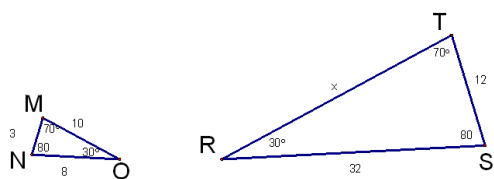
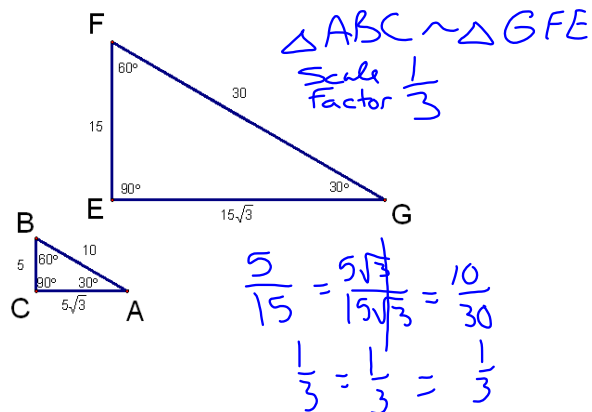


## 6-2 Similar ~ Polygons

Two polygons are ~, if

1. corresponding  $\angle$ s are  $\cong$
2. corresponding sides are proportional



$\triangle MNO \sim \triangle TSR$

$$\begin{aligned}\angle M &\cong \angle T \\ \angle N &\cong \angle S \\ \angle O &\cong \angle R\end{aligned}$$

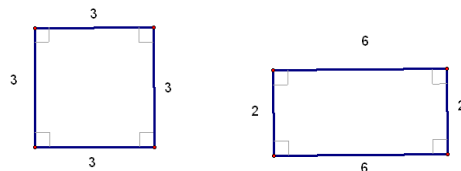
$$\frac{MN}{TS} = \frac{NO}{SR} = \frac{MO}{TR}$$

$$\frac{1}{4} = \frac{8}{12} = \frac{10}{x}$$

$$x = 40$$

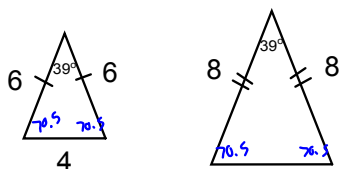
Scale Factor  
1:4

Are the following figures similar? **No**



- ① Are angles  $\cong$ ?  $\checkmark$
- ② Are sides proportional?  $\frac{3}{2} \neq \frac{3}{6}$  No

Are the following figures similar?



①  $\angle s \cong ?$  ✓

② Side prop? ✓

$$\frac{6}{8} = \frac{4}{5\frac{1}{3}}$$

$$.75 = .75$$

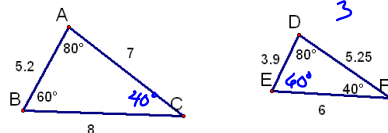
yes  $\Delta s$  are ~

$$\frac{4}{16\frac{1}{3}} = \frac{4 \cdot 3}{16 \cdot 3} = \frac{12}{48} = \frac{1}{4}$$

$$4 \div (16 \cdot 3)$$

Are the following figures similar? *yes*

*Scale Factor?  $\frac{4}{3}$*



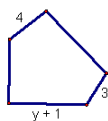
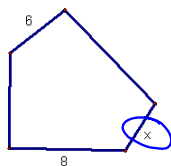
①  $\angle s \cong ?$  yes

② side prop? yes

small medium large

$$\frac{5.2}{3.9} = \frac{7}{5.25} = \frac{8}{6} = 1.\bar{3} = 1.\bar{3} \checkmark$$

The pentagons are similar.  
Solve for x. *xy*



$$\frac{x}{3} = \frac{6}{4}$$

$$x = 4.5$$

$$\frac{8}{y+1} = \frac{6}{4}$$

$$y = 4\frac{1}{3}$$

Homework

p. 293-295

#s 11-15, 17-20, 34-38